

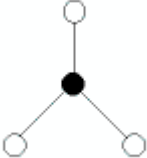
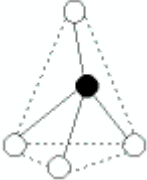
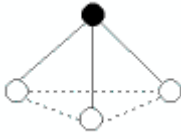

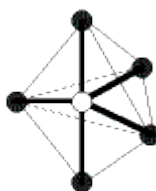
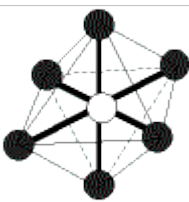


Total Number of electron pairs	Arrangement of electron pairs	Number of bonding pairs of electrons	Number of lone pairs of electrons	Shape of Molecule	Name of Shape	Bond Angle	Examples
not applicable	linear	1	not applicable		linear	180°	H <sub>2</sub> , HCl
2	linear	2	0		linear	180°	CO <sub>2</sub> , HCN
3	trigonal planar	3	0		trigonal planar	120°	BCl <sub>3</sub> , AlCl <sub>3</sub>
4	tetrahedral	4	0		tetrahedral	109.5°	CH <sub>4</sub> , SiF <sub>4</sub>
		3	1		trigonal pyramidal	<109.5° (bond angles in ammonia, NH <sub>3</sub> , are 107°)	NH <sub>3</sub> , PCl <sub>3</sub>
		2	2		bent	<109.5° (bond angles in water, H <sub>2</sub> O, are 105°)	H <sub>2</sub> O, SCl <sub>2</sub>
5	trigonal bipyramidal	5	0		trigonal bipyramidal	120° in the trigonal planar part of the molecule, 90° for the others	PCl <sub>5</sub>
6	octahedral	6	0		octahedral	90°	SF <sub>6</sub>